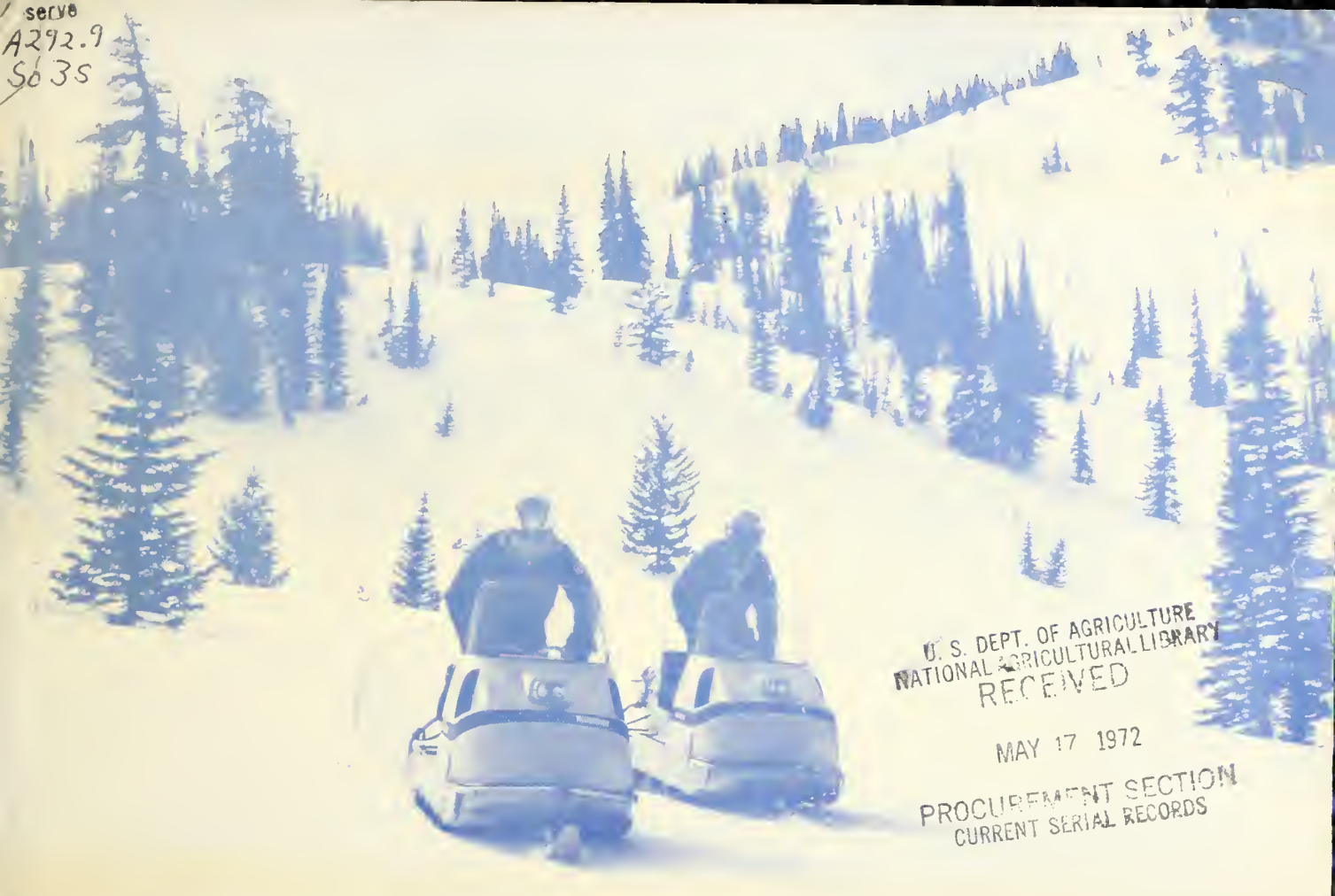


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PROCUREMENT SECTION
CURRENT SERIAL RECORDS

FEDERAL - STATE - PRIVATE
COOPERATIVE SNOW SURVEYS
for
ALASKA

U. S. DEPARTMENT of AGRICULTURE , SOIL CONSERVATION SERVICE
and
ALASKA SOIL CONSERVATION DISTRICT

Data included in this report were obtained by the agencies named above in cooperation with the U.S. Army Corps of Engineers, Alaska Power Administration, U.S. Geological Survey, Alaska Highway Dept., Alaska Department of Fish and Game, University of Alaska, Greater Anchorage Area Borough and others.

AS OF
MAY 1, 1972

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters of key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO NUMBER ORC 221-3

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 209, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	P. O. Box "F", Palmer, Alaska 99645
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 970, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84111
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



SNOW SURVEYS

for

ALASKA

Issued by

KENNETH E. GRANT

ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D.C.

Report Prepared by

ARTHUR G. CROOK, Snow Survey Supervisor

Released by

W. E. LONG, State Conservationist

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
P.O. BOX F, PALMER, ALASKA

MAY 1972

Many snow courses in Alaska now have a heavier snowpack than at any time since inception of the snow survey program. Two factors have combined to produce this situation. Weather during April was much cooler than normal and most areas received about average precipitation. As a result most low elevation snow was still unmelted as of May 1 and at higher elevations the snowpack continues to increase.

Spring runoff will be much greater than normal over a wide area of Alaska including interior rivers such as the Yukon and Tanana, as well as southeast Alaska streams and rivers discharging into Cook Inlet. The area by area outlook is as follows:

KOYUKUK Drainage

Most of the snow courses read this month are new installations with no previous record. Melting has just begun at lower elevations.

USDA-SCS-PORTLAND, OREG. 1971 N7-0-22020-1

YUKON above Rampart

Snow surveys are not made on the upper Yukon on May 1. Last months' surveys showed an above normal snowpack and it is expected that the conditions as of May 1 would be generally unchanged.

KUSKOKWIM Drainage

No May 1 surveys are made.

TANANA-CHENA Drainage

Almost no melting had taken place as of May 1 and about average precipitation was received at higher elevations. As a result most snow courses are near last years record level. Volume flow forecasts of the Chena and Salcha rivers have been revised accordingly. Runoff during the snowmelt period of May and June now is forecast to be 750,000 acre feet from the Chena river and 855,000 acre feet from the Salcha river. These figures compare to last years yields of 658,000 acre feet from the Chena and 878,000 acre feet from the Salcha. This years forecasts are 170 and 146 percent of average respectively.

MATANUSKA-SUSITNA-COPPER Drainage

Because of the abnormally cool temperatures during April and normal snowfall the water content of the snowpack in most locales is greater than at any time since surveys began eight years ago. Snowmelt runoff will be well above average.

COOK INLET

Low elevation snow courses are well above normal, due mainly to the lack of spring melting. At higher elevations the snowpack is about 115 percent of average.

SOUTHEAST ALASKA

The snowpack continues to deepen at mid and high elevation snow courses. At the Snettisham hydroelectric project the Speel river snow course, elevation 275 feet, measures 108 inches deep and contains 48.8 inches of water. This is the most measured there in the seven year history. All southeast Alaska snow courses are similarly at record maximum levels.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average †
Chena River at Fairbanks	750	170	May-June	658	442
Salcha River nr. Salchaket	855	146	May-June	878	586

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD		
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)		Years of Previous Record
NAME	Number	Elevation				Last Year	Average †	
<u>KOYUKUK DRAINAGE:</u>								
Coldfoot	107	1000	5/1	29	5.6	9.3	--	1
Dietrich Camp	106	1550	5/1	9	2.2	3.7	--	1
Jim River	115	1900	5/1	35A	10.5E	New	Course	
Glacier Creek	113	2000	5/1	20A	4.0E	New	Course	
Kupuk Creek	112	2300	5/1	19A	3.9E	New	Course	
Prospect Creek	108	980	5/1	34	8.4	6.4	--	1
Snowden Mtn.	111	1900	5/1	17A	3.2E	New	Course	
Table Mtn.	110	2200	5/1	18A	3.7E	New	Course	
West Buttons	114	1600	5/1	26A	6.0E	New	Course	
<u>YUKON DRAINAGE:</u>								
Five Mile	109	400	5/1	22	4.9	3.6	--	1
Log Cabin	69	2880	Delayed			11.3	10.4	14
Thirty Mile	116	1300	5/1	36A	9.8E	New	Course	
<u>TANANA-CHENA:</u>								
Big Delta	29	975	4/25	20	4.1	0	0	11
Big Windy	22	3850	5/1	25	6.7	3.5	4.1	9
Bonanza Creek	82	1150	4/28	28	5.6	10.0	4.8	4
Caribou Creek	103	1440	4/29	32	8.0	5.4	3.7	2
Caribou Mine	28	1115	4/15	38A	9.5E	11.2E	4.3	6
			5/1	38	9.9	9.9	4.2	6
Chena Hot Springs	21	1250	4/15	30A	6.0E	9.6E	4.2	4
			5/1	24A	5.8E	9.9	3.8	8
Cleary Summit	18	2230	4/15	38A	11.0E	12.2E	6.7	9
			4/27	44	11.8	13.1	7.6	11
Colorado Creek	27	750	5/1	29	7.6	9.3	3.9	6
A - Aerial Marker reading				E - Estimated				

SNOW

SNOW			THIS YEAR			PAST RECORD		
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)		Years of Previous Record
NAME	Number	Elevation				Last Year	Average †	
Donnelly Dome	80	2200	4/25	35	9.9	8.4	6.2	5
Fielding Lake	33	3000	4/26	61	19.0	18.9	11.9	11
Fort Greely	78	1420	4/25	23	5.3	3.3	1.8	5
French Creek	24	2010	4/25	39	10.4	NS	6.8	9
Granite Creek	81	1235	4/25	22	5.1	3.9	1.4	4
Haystack Mtn.	102	1950	4/29	45	11.7	9.3	6.2	2
Little Chena	19	2200	4/15	37A	10.0E	9.4E	5.2	10
			5/1	39	10.6	10.9	5.6	10
Little Salcha	25	1500	4/25	37	10.0	NS	4.4	10
Meadows Road	79	1570	4/25	23	5.3	T	.02	5
Mentasta Pass	31	2430	4/26	38	11.1	7.7	5.4	10
Mt. Ryan	20	2950	4/15	43A	13.0E	14.4E	8.0	10
			5/1	47	13.2	15.4	8.9	10
Munson Ridge	23	3100	4/15	74A	25.0	20.8E	13.9	10
			5/1	74	25.3	21.3	14.8	10
Poker Creek	104	1025	4/29	29	7.2	5.9	--	2
Tok Junction	30	1650	4/26	22	5.4	1.2	1.4	10
Upper Chena	75	3000	5/1	49	14.4	20.0	9.5	4
Wolf Creek	76	3850	5/1	31A	8.4E	10.0E	5.3	4
Yak Pasture	17	540	4/27	23	6.0	7.1	2.0	11
COPPER RIVER:								
Haggard Creek	34	2540	4/26	41	10.9	6.6	4.4	6
Little Nelchina	40	4160	4/28	28A	6.2E	6.9E	5.5	3
Mankomen Lake	32	3050	Delayed			7.8	5.9	5
St. Anne's Lake	54	1985	4/28	32	8.0	2.8E	2.7	6
Sanford River	37	2280	4/27	38A	9.3E	2.8	1.7	5
Tsina River	119	1550	4/28	50	15.8	New Course		
MATANUSKA-SUSITNA:								
Alexander Lake	49	200	4/27	63	18.9E	10.2E	7.9	6
Bald Mtn. Lake	47	2150	4/27	45A	11.2E	14.1E	9.0	7
Chelatna Lake	44	1650	4/27	48A	12.0E	10.6E	11.3	6
Clearwater Lake	36	3100	4/27	39	9.4	6.7	3.7	7
Fog Lakes #1	38	2270	4/27	32A	8.0E	7.6E	3.4	7
Fog Lakes #2	96	2250	4/27	37	8.6	9.2	6.8	2
Independence Mine			4/27	87	32.5	NS	--	2
Lake Louise	41	2400	4/28	30	6.9	3.2	2.8	7
Monahan Flat	35	2710	4/27	43	10.3	10.7E	7.3	7
Oshetna Lake	39	2950	4/28	28	6.0	3.3E	3.0	7
Peters Hills	45	2010	4/27	67A	19.5E	17.7E	15.7	4
Sheep Mtn. #2	120	2900	4/29	26	5.8	New Course		
Skwentna	48	158	4/27	56	16.5	9.7	6.9	5
Talkeetna	46	350	4/27	50	14.3	8.9	5.7	5
Willow Airstrip	50	150	4/28	40	10.7	NS	1.7	6
A - Aerial Marker reading				E - Estimated				
NS - No Survey								

SNOW

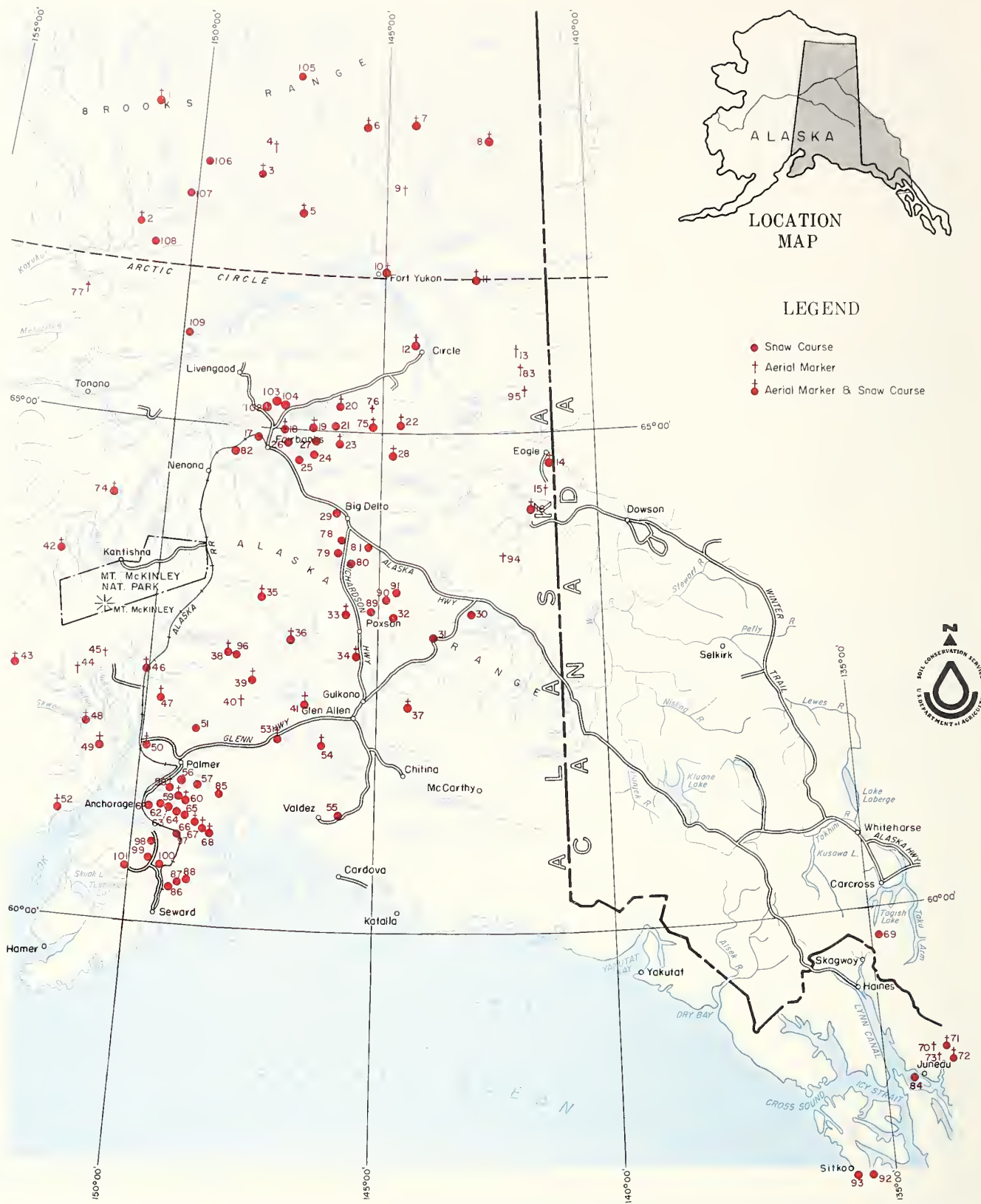
SNOW			THIS YEAR			PAST RECORD		
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)		Years of Previous Record
NAME	Number	Elevation				Last Year	Average †	
<u>COASTAL DRAINAGE:</u>								
Arctic Ski Bowl	65	3000	5/1	53	15.1	14.6	12.2	7
Arctic Valley #1	61	500	5/1	0	0	0.0	0.0	7
Arctic Valley #2	62	1000	5/1	12	2.3	0.0	0.0	7
Arctic Valley #3	63	2030	5/1	25	6.5	0.0	2.5	7
Arctic Valley #4	64	2330	5/1	31	7.2	T	3.2	7
Bird Creek	66	2350	5/2	63	20.8	21.8	18.8	5
Goat	59	3200	5/2	31	8.1	18.9	21.8	3
Indian Pass	68	2350	5/2	75	25.1	24.7	21.9	5
Lowe River	118	550	4/28	56	17.9	New Course		
McArthur	52	120	4/27	76A	26.6E	NS	16.5	5
Moraine	56	2100	5/2	30	7.8	6.8	8.0	13
Ptarmigan	57	3000	5/2	40	10.8	7.9	9.3	13
Ship Creek	67	1750	5/2	48	14.5	12.4	10.2	5
Worthington Glacier	55	2400	4/28	54	19.9	22.1	21.4	14
<u>KENAI PENINSULA:</u>								
Bertha Creek	98	850	5/2	50	14.4	11.1	7.4	2
Bridge Creek, Upper	121	1300	5/3	47	13.7	New Course		
Bridge Creek, Lower	122	1100	5/3	42	12.6	New Course		
Jean Lake	101	620	5/2	14	3.2	1.2	--	
Kenai Summit	99	1390	5/2	37	10.1	12.1	11.9	2
Moose Pass	100	700	5/2	19	5.3	8.5	--	
<u>SOUTHEAST ALASKA:</u>								
Blue Lake	93	950	4/29	106	45.0	New Course		
Crater Lake	73	1750	5/3	152	72.8	74.0	68.9	7
Douglas Ski Bowl	84	1640	5/1	96	40.2	36	37.3	4
Harriet Top	123	2000	5/2	160	75	New Course		
Hunt Saddle	124	1500	5/2	132	60.2	New Course		
Lake Shore	125	660	5/2	77	34.7	New Course		
Long Lake	71	1075	5/3	136	60.4	55.0	45.7	7
Mt. Bassie	92	1200	No Survey			New Course		
Speel River	72	275	5/3	108	48.8	41.6	28.1	7
Upper Long Lake	70	1000	5/3	123	59.0	53.0	43.4	7
<u>GLACIER STATIONS:</u>								
Gulkana Glacier A	89	4590	Water Year 1971:					
			3/12	74	25.6	--	--	-
			3/23	70	26.0	--	--	-
			6/14	47	26.0	10.6	--	-
A - Aerial Marker reading					E - Estimated			
NS - No Survey								

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD		
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)		Years of Previous Record
						Last Year	Average †	
Gulkana Glacier B	90	5478	Water Year 1972:					
			11/20	46	12.0	-	-	-
			3/20	67	22.8	26.0	-	-
			4/25	87	26.8	-	21.2	2
			Water Year 1971:					
			3/23	100	38.2	-	-	-
			6/14	90	39.0	36.2	40.6	2
			7/14	22	12.2	-	-	-
			Water Year 1972:					
			11/20	70	22.4	-	-	-
Gulkana Glacier C	91	6363	3/20	97	35.0	38.2		
			4/26	106	34.6	-	30.3	2
			Water Year 1971:					
			3/13	160	63.4	34.6	-	-
			7/29	82	45.7	-	-	-
			Water Year 1972:					
			8/23	1	0.4	18.1	31.3	2
			11/17	71	26.0	-	-	-
			4/26	132	44.9	-	54.9	2
			Water Year 1971:					
Wolverine Glacier A	86	2100	4/27	93	33.9	59.0	-	-
			5/3	101	36.6	-	-	-
			7/9	21	19.3	0	-	-
			Water Year 1972:					
			10/17	17	5.2	0.4	-	-
			1/11	15	5.2	10.2	-	-
			4/8	14	4.7	-	-	-
			Water Year 1971:					
			4/29	187	76.0	-	-	-
			7/10	144	81.9	80.3	-	-
Wolverine Glacier B	87	3610	8/13	38	23.6	-	-	-
			Water Year 1972:					
			10/16	34	10.2	1.2	-	-
			1/13	61	21.3	29.1	-	-
			4/10	83	29.9	-	76.6	3
			Water Year 1971:					
			4/23	218	90.2	-	-	-
			5/4	228	92.9	-	-	-
			Water Year 1971:					
			4/23	218	90.2	-	-	-
Wolverine Glacier C	88	4430	5/4	228	92.9	-	-	-

SNOW

DRAINAGE BASIN and/or SNOW COURSE				THIS YEAR			PAST RECORD		
				Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)		Years of Previous Record
NAME	Number	Elevation					Last Year	Average †	
Water Year 1972:				7/11	177	105.9	55.1	-	-
				8/13	126	75.6	--	-	-
				9/20	98	56.7	23.6	-	-
				10/14	52	18.1	-	-	-
				10/21	58	21.6	-	-	-
				1/13	86	33.6	38.6	-	-
				4/10	108	39.4	-	-	-
DELAYED DATA									
Goat	59	3200	3/10/72	29	7.9	6.8	10.7	4	
Moraine	56	2100	3/10/72	24	5.7	3.4	6.4	4	
Ptarmigan	57	3000	3/10/72	32	8.4	4.4	6.8	4	
Mankomen Lake	32	3050	3/1/72	50	11.4	6.6	4.9	5	
DATA CORRECTIONS (Underlined figure is the corrected value)									
Independence Mine	51	3300	3/1	71	<u>23.9</u>	24.0	13.0	6	
Worthington Glacier	55	2400	2/29	43	<u>17.3</u>	12.7	13.7	6	
Douglas Ski Bowl	84	1640	3/4	112	<u>46.7</u>	34.6	27.0	4	
Ptarmigan	57	3000	3/30	40	<u>9.4</u>	7.0	9.7	15	
Moraine	56	2100	3/30	33	<u>7.5</u>	5.6	8.9	15	
Arctic Valley #1	61	500	3/31	<u>19</u>	<u>4.4</u>	2.4	1.7	8	



SNOW COURSES for ALASKA

50 0 50 100 150
SCALE IN MILES

INDEX OF ALASKA SNOW COURSES

MAP No.	COURSE NAME	COURSE No.	ELEV.	MAP No.	COURSE NAME	COURSE No.	ELEV.
1	Anaktuvuk Pass	51TT1A	2100	55	Worthington Glacier	45MM2	2400
2	Bettles Field	51RR1A	640	56	Moraine	48MM1	2100
3	Chandalar Lake	48SS1A	2040	57	Ptarmigan	48MM2	3000
4	Squaw Lake	48SS2a	2150	59	Goat	48MM7A	3200
5	Venetie	46SS1A	610	61	Arctic Valley #1	49MM1	500
6	Arctic Village	45TT1A	2300	62	Arctic Valley #2	49MM2	1000
7	Koness Lake	44SS1A	1790	63	Arctic Valley #3	49MM3	2030
8	Coleen River	42SS1A	1100	64	Arctic Valley #4	49MM4	2330
9	Vundik Lake	43SS1a	950	65	Arctic Ski Bowl	49MM5	3000
10	Fort Yukon	45RR1AM	425	66	Bird Creek	49MM6A	2350
11	Black River	42RR1A	650	67	Ship Creek	49MM7AM	1750
12	Circle City	44QQ3A	600	68	Indian Pass	49MM8A	2350
13	Bull Lake	41RR1a	810	69	Log Cabin (B.C.)	34KK1	2880
14	Eagle Village	41PP1A	900	70	Upper Long Lake	33JJ2a	1000
15	Boundary	41PP3A	3300	71	Long Lake	33JJ1A	1075
16	Chicken Airstrip	41PP2A	1650	72	Speel River	33JJ3A	275
17	Yak Pasture	47PP1	540	73	Crater Lake	33JJ4a	1750
18	Cleary Summit	47QQ1A	2230	74	Wien Lake	51PP1A	1020
19	Little Chena	46QQ2AP	2200	75	Upper Chena	44QQ1AP	3000
20	Mt. Ryan	46QQ1AP	2950	76	Wolf Creek	44QQ4a	3850
21	Chena Hot Springs	45QQ1	1250	77	Lake Todatonten	52RR1a	985
22	Big Windy	44QQ2AP	3850	78	Ft. Greely	45005	1420
23	Munson Ridge	46PP1AP	3100	79	Meadows Road	45002	1570
24	French Creek	46PP2MP	2010	80	Donnelly Dome	45003	2200
25	Little Salcha	46PP3	1500	81	Granite Creek	45004	1235
27	Colorado Creek	46PP4	750	82	Bonanza Creek	48PP1	1150
28	Caribou Mine	45PP2A	1115	83	Dempsey Creek	41RR2a	950
29	Big Delta	45PP1	975	84	Douglas Ski Bowl	34JJ1	1640
30	Tok Junction	43001	1650	85	Eagle Glacier	49MM9	4790
31	Mentasta Pass	43NN1	2430	86	Wolverine Glacier#1	48LL1	2130
32	Mankomen Lake	44NN1	3050	87	Wolverine Glacier#2	48LL2	3610
33	Fielding Lake	45001A	3000	88	Wolverine Glacier#3	48LL3	4430
34	Haggard Creek	45NN1A	2540	89	Gulkana Glacier#1	45006	4590
35	Monahan Flat	47001A	2710	90	Gulkana Glacier#2	45007	5478
36	Clearwater Lake	46NN1A	3100	91	Gulkana Glacier#3	45008	6363
37	Sanford River	45NN2A	2280	92	Mt. Bassie	35II1	1200
38	Fog Lakes	48NN1A	2270	93	Blue Lake	35II2	950
39	Oshetna Lake	47NN1A	2950	94	Mt. Fairplay	42001a	3100
40	Little Nelchina	47NN2a	4160	95	Nation River	41QQ1a	3050
41	Lake Louise	46NN2A	2400	96	Fog Lakes#2	48NN2	2250
42	Lake Minchumina	52001A	730	97	Mt. Alyeska	49LL1	1300
43	Farewell Lake	53NN1A	1090	98	Bertha Creek	49LL2	850
44	Chelatna Lake	51NN1a	1650	99	Kenai Summit	49LL3	1390
45	Peters Hills	50NN1a	2010	100	Moose Pass	49LL4	700
46	Talkeetna	50NN2	350	101	Jean Lake	50LL1	620
47	Bald Mt. Lake	49NN1A	2150	102	Haystack Mtn.	47QQ2	1950
48	Skwentna	51MM1A	158	103	Caribou Creek	47QQ3	1440
49	Alexander Lake	50MM1A	200	104	Poker Creek	47QQ4	1000
50	Willow Airstrip	50MM2	150	105	Elusive Lake	47TT1	1800
51	Independence Mine	49MM10	3300	106	Dietrich Camp	49SS1	1550
52	McArthur	52LL1A	120	107	Cold Foot Camp	50SS1	1000
53	Sheep Mountain	47MM1	2700	108	Prospect Creek	50RR1	980
54	St. Anne's Lake	46MM1A	1985	109	5 Mile Camp	49QQ1	400

Legend

45TT1 Snow Course Only
 45TT1M Snow Course & Soil Moisture
 45TT1A Snow Course & Aerial Marker
 45TT1a Aerial Marker Only
 45TT1P Snow Course & Precipitation Gage

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